

SDMS US EPA REGION V -1

**SOME IMAGES WITHIN THIS
DOCUMENT MAY BE ILLEGIBLE
DUE TO BAD SOURCE
DOCUMENTS.**

8/24/84

160395

SAMPLING DATA

① KEN MENSING - COLLINSVILLE

Time Collected: 9:45 am

Lab # DC23810

Date Collected: 1/19/82

SPECIAL ANALYSIS FORM

Date Received JAN 25 1982

JDS

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY: ST CLAIR FILE HEADING: SAIGET / STD FILE NUMBER: General

SOURCE OF SAMPLE: (Exact Location)
VACUUM CLOTH FILTER CAKE OFF CONVEYOR TO
DUMPSTER

PHYSICAL OBSERVATIONS, REMARKS: - RELATIVELY DRY CAKE

TESTS REQUESTED: MONITORING TEST FOR ORGANICS - CHLOROPHENOLS
AND RELATED COMPOUNDS.

COLLECTED BY: MICHAEL MAHLAUST DPL
TRANSPORTED BY: Robert T. H. Berger

LABORATORY

RECEIVED BY: RSD DATE COMPLETED: 4/12/82 DATE FORWARDED: 4/12/82

Q. Hines

Xylenes = 120. ug/g (PPM)

C4-substituted cyclohexene = 600. ug/g

C3-substituted benzenes = 290. ug/g

C4-substituted benzenes = 820. ug/g

Dichlorobenzene = 350. ug/g

Chloronitrobenzene = 120. ug/g

Dichloronitrobenzene = 210. ug/g

Aliphatic hydrocarbons = 410. ug/g

2-Nitro-N-phenylaniline = 320. ug/g

Methylheptyldecylbenzene = 300. ug/g

Other unconfirmed aromatic compounds (unconfirmed)

LPC-8A 4/77

Q.H.

(NOT FOR DATA PROCESSING)

DC23810

DATA IN UNITS OF MICROGRAMS PER
GRAM OF SAMPLE (P.P.M.) UNLESS
OTHERWISE INDICATED. BASED
ON DRY WEIGHT, 103°C, 48 HOURS.

DIVISION OF LAND/NOISE POLLUTION CONTROL

LPCSMO30

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded			

Name (Private Well, Stream, Spring, Impounded Water only)

L P C S M O I O SITE INVENTORY
(1) (8) NUMBER (9) (16)

MONITOR POINT X 201 DATE 011982
NUMBER (17) (20) COLLECTED (21) (26)

ST CLAIR Co. - LPC REGION # (27)

SANGET / SEWAGE TREATMENT PLANT
(Location) (Responsible Party)

Legal (1); Illegal (2); Indicate One: 1 Board Order (X)
(28) (29)

Time Collected 9:45 a.m. Unable to collect sample (X)
(31) (30)

Stick-up (31) ft. Depth to water (36) ft.
(from T.O.C.)

Sample temp. (37) ° Background (X) (40)

Ground water sampled by (Indicate one): (1) Bailing;
(2) Pumping; (3) Other (Specify) (41)

Sample Appearance: CAKE FROM VACUUM CLOTH
FILTER

Collector comments:

Collected by: Div. or Company
Transported by: Div. or Company

LAB USE ONLY 0023811

Lab No.

Date Rec'd JAN 25 1982

Rec'd by BUD Time a.m. p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed

Date forwarded MAR 9 1982

Supervisor Signature

Name

Address
of Lab

LPCSMO20

Lab Comments:

Phenolics - (27) (36)

169 mg/kg (37) (46)

dry wt. (47) (56)

mg/kg - dry (57) (66)

wt. (67) (76)

Private Lab (X)

IEPA Lab (X) (77)

(78)

d samples. *Values
in the lab comments section;
explained in the lab

PARAMETERS	PPM*
27 Alkalinity ¹	.X X X X
31 Ammonia as N	.X X
37 X Arsenic As	99. X
44 X Barium Ba	370. X X X
49 BOD -5	.X X X X
53 Boron B	.X X X
58 X Cadmium Cd	210. X X
64 Calcium Ca	.X X X
69 COD	.X X X X
73 Chloride Cl	.X X X X

LPCSMO40

27 X Chromium Cr (tot)	550. X X
33 Chromium Cr ⁺⁶	.X X
39 X Copper Cu	5400. X X
45 X Cyanide ² CN #	6.9 X
52 Fecal Coli (#/100 ml)	.X X X X
56 Fluoride F	.X X X
61 Hardness CaCO ₃	.X X X X
65 X Iron Fe 56E3	56E3 X X X
70 X Lead Pb	1500. X X

LPCSMO50

27 X Magnesium Mg	7300. X X X
32 X Manganese Mn	770. X X
38 X Mercury Hg	5.0
46 X Nickel Ni	4200. X X X
51 Nitrate-nitrite N	.X X X
56 Oil and Grease	.X X X X
60 ph (Units)	X X .X X X
63 X Phenolics	0.00 X
70 Phosphorus P	.X X
75 X Potassium K	680. X X X

LPCSMO60

27 R.O.E. (180°C)	.X X X X
31 X Selenium Se	16. X
38 X Silver Ag	15. X X
44 Sodium Na	.X X X
49 SC (umhos/cm)	.X X X X
53 Sulfate SO ₄	.X X X
58 X Zinc Zn	16E3. X X X
63 % Solids	30.6

¹Alkalinity is to be determined as ppm of
CaCO₃ at pH 4.5.

²Cyanide is to be reported as free cyanide.

IEPA - CHAMPAIGN LAB

Rec'd. B034064

JAN. 29. 1982

HARDING

GRAM OF SAMPLE (P.P.M.) UNLESS
OTHERWISE INDICATED. BASED
ON DRY-WEIGHT, 103° C, 48 HOURS.

Key for Determining Type of Monitoring Point

Water	(G) Ground Water	(L) Leachate	(X) Special
Upstream	(1) Monitor Well	(1) Flow or seep	(1) Soil
Midstream	(2) Private well	(2) Pond	(2) Waste
Downstream	(3) Spring	(3) Collection System	(3) Other
Off	(4) Lysimeter		
Impounded			

Water: Private Well, Stream, Spring, Impounded Water only)

1 P 2 M 3 1 0 SITE INVENTORY
(8) NUMBER (9) (16)

DATE COLLECTED (21) (26)

Co. - LPC REGION # (27)

Location (Responsible Party)

Illegal (2); Indicate One: (28) Board Order (X) (29)

Time collected (30) Unable to collect sample (X) (30)

Depth to water (ft.) (from T.O.C.) (36)

Background (X) (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) (41)

Sample appearance: (42)

Collector comments:

Collected by Div. or Company

Transported by Div. or Company

LAB USE ONLY

Lab #

Date Rec'd

Rec'd by Time

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed

Date awarded MAR 9 1982

Supervisor Signature

Name

Address

of Lab

LPC5020
Lab Comments:

Phenolics (36)

169 mg/kg (46)

Dry wt. (36)

mg/kg - Dry (46)

wt. (46)

Private Lab (X)

IEPA Lab (X) (77)

(78)

4 samples. *Values in the lab comments section; explained in the lab

IEPA - CHAMPAIGN LAB

Rec'd. B034064

JAN. 20. 1982

PARAMETERS	PPM
27 Alkalinity ¹	X X X
31 Ammonia as N	X X
37 X Arsenic As	99 X
44 Y Barium Ba	370 X X
49 BOD -5	X X X
53 Boron B	X X
58 X Cadmium Cd	210 X X
64 Calcium Ca	X X X
69 COD	X X X
73 Chloride Cl	X X X

LPC5040

27 Y Chromium Cr (tot)	550 X X
33 Chromium Cr ⁶	X X
39 X Copper Cu	5400 X X
45 X Cyanide ² CN #	6.9
52 Fecal Coli (2700 MPN)	X X X
56 Fluoride F	X X X
61 Hardness CaCO ₃	X X X
65 X Iron Fe 56E3	56E3 X X
70 X Lead Pb	1500 X X

LF 5050

27 Y Magnesium Mg	7300 X X
32 Y Manganese Mn	72 X X
38 Y Mercury Hg	5.0 X X
46 Y Nickel Ni	4200 X X
51 Nitrate-nitrite	X X
56 Oil and Grease	X X X
60 Pb (total)	X X X
63 X Phenol	8.00 X X
70 Phosphate P	X X
76 X Potassium K	680 X X

LPC5060

27 R.O.T. (1400C)	X X X
31 X Selenium Se	16 X X
38 Y Silver Ag	15 X X
44 Sodium Na	X X X
49 SC (umhos/cm)	X X X
53 Sulfate SO ₄	X X X
58 X Tin Sn	16E3 X X
63 % Solids	30.6 X X

¹ Alkalinity is to be determined as ppm of CaCO₃ at pH 4.5.

² Cyanide is to be reported as free cyanide.

SPECIAL
HANDLING

Time Collected: 10:30 A.M. - 17:00 P.M.

Lab #

0027463

Date Collected: DEC 9, 1992

SPECIAL ANALYSIS FORM

Date Received JAN 24, 1993

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:

ST. CLAIR

FILE HEADING:

SAUGET/CLAYTON CHEMICAL

FILE NUMBER:

16317104

SOURCE OF SAMPLE: (Exact Location) OBTAINED FROM THE SIDEWALL
OF A RECENT EXCAVATION APPROXIMATELY 70 FEET
WEST OF SAMPLING POINT FOR SAMPLE # 18.

PHYSICAL OBSERVATIONS, REMARKS:

COMPOSITE SOIL SAMPLE TAKEN FROM DEPOSITS
ALONG THE SIDEWALL OF THE EXCAVATION, FROM
0" - 9". SAMPLE JAR # 19.

TESTS REQUESTED: PCB'S

COLLECTED BY: Kenneth H. Marzinger

TRANSPORTED BY: Orville C. King

John P. Edwards

LABORATORY

RECEIVED BY: S.B.

DATE
COMPLETED:

2/9/83

DATE
FORWARDED: 2/9/83

J. Hurley

PCBS = 120. $\mu\text{g/g}$

other organics not detected in the extract
of this sample.

RECEIVED
ILL. EP. DIV. 1-1-83
STATE OF ILLINOIS

Ken Mensing - Illinois EPA *KAM*

LPC General - St. Clair County - Sauget/Clayton Chemical Company
Illinois Dioxin Sampling

On December 8, 1982, John Evans and I went to Clayton Chemical Co. in Sauget, Illinois for the purpose of obtaining soil samples to determine if dioxin contamination was present. I had previously contacted Dave Wieties of Clayton Chemical to inform him of the purpose and scope of our planned soil sampling. On December 8, 1982, we spoke with both Bud Haney and Dave Wieties of Clayton Chemical Co. Mr. Haney indicated that the only tanks that Bliss Waste Oil Service ever had on the property were the four 17,000 gallon tanks that are presently there along the northern boundary and an old tall tank that had a capacity of 130,000 gallons. This tank is no longer there, but was located east of the present tanks in an area that is presently rocked as a parking area for the Sauget Sewage Treatment Plant. Mr. Haney said that the tank was initially a water storage tank for the railroad. He further stated that the Village of Sauget or the sewage treatment plant bought the property from the G.M.&O. Railroad, which is now the I.C.G. Railroad. Mr. Haney identified the area where the tank had been located to us. Dave Wieties accompanied us during the sample collection.

Sample #1 was obtained from an area that would have been under the center of the old tank. After digging and picking through the limestone rocked surface, we dug down into the underlying soil to a depth of eight inches. A composite sample was obtained from the soils encountered during the digging of the hole. Sample #2 was collected from the sidewall of a recent excavation approximately 20 feet west of sampling point #1. Deposits along the sidewall of the excavation were placed directly in a sample jar with a hand trowel from the surface down to eight inches. Sample #3 was obtained at the base of existing Tank #2 on the north side. The existing tanks are numbered #1 --#4 from east to west. Again at this sampling point, we had to dig and pick through a layer of crushed limestone rock to get down to soil. A composite soil sample was obtained from materials encountered by digging and picking away a hole six inches deep. The soil was oil soaked. Sample #4 was obtained at the base of Tank #3 along the south side. The same conditions were encountered and the same procedures used as in Sample #3.

The telephone number for Clayton Chemical Co. is 618/271-0467. All holes were adequately backfilled. The samples were collected between 10:30 a.m. and 12:00 p.m.

KGM:jlr

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 1/21/83

SUBJECT: Review of Region V CLP Data
Received for Review on 1/21/83

FROM: Curtis Ross, Director *Chuck E. Ross for*
Central Regional Laboratory

TO: Data User: KAR/ Bremer (Norm Niedergang)

We have reviewed the data for the following case(s).

SITE NAME: Illinois Dioxins SMO CASE NO. SAS 351 E
EPA DATA SET NO. TOSB 1971-1978 NO. of 25 DU/ACTIVITY L306/C32401
CRL NOS. 83 TS16501 to 83 TS17504 NOS.
SMO TRAFFIC NOS. 52045 to 52068
CONTRACT LAB: CAI Labs HOURS REQUIRED FOR REVIEW: _____

Following are our findings.

*Refer to the computer printout
attached.*

*PCB data will be forwarded at
a later date.*

- ☐ Data are acceptable for use.
☒ Data are acceptable for use with qualifications noted above.
☐ Data are preliminary - pending verification by contractor laboratory.
☐ Data are unacceptable.

cc: Dr. Alfred Haebeler, EPA Support Services
Dr. Gene Meier, EMSL-Las Vegas
Robert Pritchard, CLP, Sample Management Office

STEP 1. DAT
2 TYPE TEMP.DAT

From:XRSPAUL
To:XRSPAT

21-JAN-1983 09:46

Reconstructed by *Chen*
1/21/83

3551E 25R x 11C

21-JAN-83 8:58 Page 1

total tcds

EPA ID	1 CAL ID	11 DET. LIM.	UG/KG = PPH
1 83TS10S01	S2045	< 0.25	<i>Handwritten: "None of these"</i>
2 83TS10S02	S2046	< 0.25	
3 83TS10S03	S2047	< 0.25	
4 83TS10S04	S2048	< 0.25	
5 83TS10S05	S2049	< 0.25	
6 83TS10S06	S2050	< 0.25	
7 83TS11S01	S2051	< 0.50	
8 83TS11S02	S2052	< 0.25	
9 83TS11S03	S2053	< 0.25	
10 83TS11S04	S2054	< 0.25	
11 83TS11S05	S2055	< 0.65	
12 83TS12S01	S2056	< 0.25	
13 83TS12S02	S2057	< 0.25	
14 83TS12S03	S2058	< 0.25	
15 83TS12S04	S2059	< 0.25	
16 83TS13S01	S2060	NOT RELEVANT	
17 83TS13S02	S2061	< 0.25	
18 METH MLNK	S2064MR	< 0.25	
19 83TS14S01	S2062	NOT RELEVANT	
20 83TS14S02	S2063	NOT RELEVANT	
21 83TS14S03	S2064	NOT RELEVANT	
22 83TS14S03IMP.	S2064IMP.	NOT RELEVANT	
23 83TS14S04	S2065	< 0.25	
24 83TS14S02	S2067	< 0.25	
25 83TS17S01	S2068	< 0.25	

ANY VALUE

< 1 use 1.25

NO REPORTABLE DIOXINS

** Will be rerun probably by Monday 1/24/83

1/21/83
Note: This is a computer print out and the background information & the formal data report will be received at a later date. Accordingly, please treat this report as a draft.
[Signature]

NIHRA-DMH
TYPE TEMP.DAT

21-JAN-1983 09:46

From:XRSPAU
To:XRSPAT

21-JAN-83 8:53 Page 1

25R x 11C

1 CAL ID 11 DET. LIM.
UG/KG = PPK

total tcds

1	031S10S01	S2045	< 0.25
2	031S10S02	S2046	< 0.25
3	031S10S03	S2047	< 0.25
4	031S10S04	S2048	< 0.25
5	031S10S05	S2049	< 0.25
6	031S10S06	S2050	< 0.25
7	031S11S01	S2051	< 0.50
8	031S11S02	S2052	< 0.25
9	031S11S03	S2053	< 0.25
10	031S11S04	S2054	< 0.25
11	031S11S05	S2055	< 0.65
12	031S12S01	S2056	(will be used) < 0.25
13	031S12S02	S2057	< 0.25
14	031S12S03	S2058	< 0.25
15	031S12S04	S2059	< 0.25
16	031S13S01	S2060	NOT RELEVANT
17	031S13S02	S2061	< 0.25
18	031S14S01	S2062	NOT RELEVANT
19	031S14S02	S2063	NOT RELEVANT
20	031S14S03	S2064	NOT RELEVANT
21	031S14S03	S2064	NOT RELEVANT
22	031S14S03	S2064	NOT RELEVANT
23	031S14S04	S2065	< 0.25
24	031S14S02	S2067	< 0.25
25	031S17S01	S2068	< 0.25

ANY VALUE

< 1 ug/kg

NO REPORTABLE TOXINS

Will be removed by Monday 1/24/83

1/21/83

Note: This is a computer print out and the background information & the general data report will be received at a later date. Accordingly, please treat the report as draft.

Handwritten signature

Reconsulted by
1/21/83

Time Collected:

10:25 A.M.

Lab #

DO27761

Date Collected:

2-19-83

SPECIAL ANALYSIS FORM

Date Received

FEB 19 1983

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:

ST. CLAIR

FILE HEADING:

SAUGET / S.T.P.

FILE NUMBER:

General

SOURCE OF SAMPLE: (Exact Location) 5' WEST OF WEST POST OF
GRANT SIGN IN A DIRECT LINE TO THE ELEC. POLE
INSIDE CLAYTON CHEMICAL FENCE.

PHYSICAL OBSERVATIONS, REMARKS: SAMPLE JAR # 1

COMPOSITE SOIL SAMPLE 0"-7" DEEP.

TESTS REQUESTED: PCB'S

COLLECTED BY:

Kenneth L. Mensing

TRANSPORTED BY:

Kenneth L. Mensing

LABORATORY

RECEIVED BY:

J. Hurley

DATE
COMPLETED:

3/4/83

DATE
FORWARDED:

3/4/83

J. Hurley

PCBs = 1.5 ug/g (PPM)

RECEIVED

MAR 18 1983

E.P.A. - D.L.P.C.
STATE OF ILLINOIS

(JA)

DO27762

Time Collected: 10:45 A.M.

Lab #

Date Collected: 2-19-83

SPECIAL ANALYSIS FORM

Date Received

FEB 19 1983

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:

ST. CLAIR

FILE HEADING:

SAUGET / S.T.P.

FILE NUMBER:

SOURCE OF SAMPLE: (Exact Location) 18" SOUTH OF THE 7TH
POST FROM THE GATE NEAR STAKE 23+78.12
19" WEST OF SURVEY STAKE & 17" SOUTH

PHYSICAL OBSERVATIONS, REMARKS: SAMPLE JAR # 2A

COMPOSITE SOIL SAMPLE 0"-7" DEEP.

TESTS REQUESTED: PCB'S

COLLECTED BY:

Kenneth H. Menzies

TRANSPORTED BY:

Kenneth H. Menzies

LABORATORY

RECEIVED BY:

J. Hurley

DATE
COMPLETED:

3/4/83

DATE
FORWARDED:

3/4/83

J. Hurley

PCBs = 7.6 ug/g

RECEIVED

MAR 18 1983

E.P.A. - D.L.P.C.
STATE OF ILLINOIS

(LB)

D027763

FEB 19 1983

Time Collected: 10:50 A.M.

Lab #

Date Collected: 2-19-83

SPECIAL ANALYSIS FORM

Date Received

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:

ST. CLAIR

FILE HEADING:

SAUGET / S.T.P.

FILE NUMBER:

SOURCE OF SAMPLE: (Exact Location)

18" SOUTH OF THE 7TH
POST FROM THE GATE NEAR STAKE 73 + 79.12
18" WEST OF SURVEY STAKE & 17" SOUTH

PHYSICAL OBSERVATIONS, REMARKS:

SAMPLE JAR # 2B
COMPOSITE SOIL SAMPLE 7" - 13".

TESTS REQUESTED:

PCB's

COLLECTED BY:

Kenneth A. Menzies

TRANSPORTED BY:

Kenneth A. Menzies

LABORATORY

RECEIVED BY:

J. Hursey

DATE

COMPLETED:

3/4/83

DATE

FORWARDED:

3/4/83

J. Hursey

PCBs = 0.39 ug/g

RECEIVED

MAR 18 1983

E.P.A. - D.L.P.C.
STATE OF ILLINOIS

(3A)

Time Collected: 11:10 A.M.

Lab # 0027764

Date Collected: 2-19-83

SPECIAL ANALYSIS FORM

Date Received FEB 19 1983

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:

ST. CLAIR

FILE HEADING:

SAUGET / S.T.P.

FILE NUMBER:

SOURCE OF SAMPLE: (Exact Location) 75' WEST OF SOUTH
GATE POST.

PHYSICAL OBSERVATIONS, REMARKS: SAMPLE JAR # 3A
COMPOSITE SOIL SAMPLE 0"-7"

TESTS REQUESTED: PCB'S

COLLECTED BY: Kenneth J. Menzies TRANSPORTED BY: Kenneth J. Menzies
LABORATORY

RECEIVED BY: J. Hunsley DATE COMPLETED: 3/4/83 DATE FORWARDED: 3/4/83
J. Hunsley

PCBs = 9.1 ug/g

RECEIVED

MAR 18 1983

E.P.A. - D.L.P.C.
STATE OF ILLINOIS

(3 B)

Time Collected: 11:15 A.M.

Lab #

DO27765
FEB 19 1983

Date Collected: 2-19-83

SPECIAL ANALYSIS FORM

Date Received

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:

ST. CLAIR

FILE HEADING:

SAUGET / S.T.P.

FILE NUMBER:

SOURCE OF SAMPLE: (Exact Location) 25' WEST OF SOUTH
GATE POST.

PHYSICAL OBSERVATIONS, REMARKS: SAMPLE JAR # 3B
COMPOSITE SOIL SAMPLE 7"-13"

TESTS REQUESTED: PCB'S

COLLECTED BY: Kenneth A. Mencing TRANSPORTED BY: Kenneth A. Mencing
LABORATORY

RECEIVED BY: J. Hurley DATE COMPLETED: 3/4/83 DATE FORWARDED: 3/4/83
J. Hurley

PCBs = 0.04 ug/g

RECEIVED

MAR 18 1983

E.P.A. - D.L.P.C.
STATE OF ILLINOIS

(4A)

Time Collected: 11:35 A.M.

Lab #

D027766

Date Collected: 2-19-83

SPECIAL ANALYSIS FORM

Date Received FEB 19 1983

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:

ST. CLAIR

FILE HEADING:

SAUGET / S.T.P.

FILE NUMBER:

SOURCE OF SAMPLE: (Exact Location) 69' WEST OF 9TH PERMANENT
FENCE POST, 39' EAST OF HELMKAMP YARD
GATE.

PHYSICAL OBSERVATIONS, REMARKS: SAMPLE JAR # 4A
COMPOSITE SOIL SAMPLE 0"-6"

TESTS REQUESTED: PCB'S

COLLECTED BY: Kenneth J. Mending

TRANSPORTED BY: Kenneth J. Mending
LABORATORY

RECEIVED BY: J. Hurley

DATE
COMPLETED:

3/4/83

DATE
FORWARDED: 3/4/83

J. Hurley

PCBs = 20. ug/g

RECEIVED

MAR 18 1983

E.P.A. - D.L.P.C.
STATE OF ILLINOIS

(4 B)

Time Collected: 11:40 A.M.

Lab #

D027767

Date Collected: 2-19-83

SPECIAL ANALYSIS FORM

Date Received FEB 19 1983

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:

ST. CLAIR

FILE HEADING:

SAUGET / S.T.P.

FILE NUMBER:

SOURCE OF SAMPLE: (Exact Location) 69' WEST OF 9TH PERMANENT FENCE POST, 39' EAST OF HELMKAMP YARD GATE.

PHYSICAL OBSERVATIONS, REMARKS: SAMPLE JAR # 4B

COMPOSITE SOIL SAMPLE 6" - 13"

TESTS REQUESTED: PCB'S

COLLECTED BY: Kenneth J. Mensing TRANSPORTED BY: Kenneth J. Mensing
LABORATORY

RECEIVED BY: J. Hurley DATE COMPLETED: 3/4/83 DATE FORWARDED: 3/4/83
J. Hurley

PCBs = 54. ug/g

RECEIVED

MAR 18 1983

E.P.A. - D.L.P.C.
STATE OF ILLINOIS

(5A)

Time Collected: 12:00 NOON

Lab #

D027768

Date Collected: 2-19-83

SPECIAL ANALYSIS FORM

Date Received FEB 19 1983

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:

ST. CLAIR

FILE HEADING:

SAUGET / S.T.P.

FILE NUMBER:

SOURCE OF SAMPLE: (Exact Location) 75' WEST OF CORNER
OF NEW PUMP STATION.

PHYSICAL OBSERVATIONS, REMARKS: SAMPLE JAR # 5A
COMPOSITE SOIL SAMPLE 0"-6"

TESTS REQUESTED: PCB'S

COLLECTED BY: Kenneth L. Mending TRANSPORTED BY: Kenneth L. Mending
LABORATORY

RECEIVED BY: J. Hurley DATE COMPLETED: 3/4/83 DATE FORWARDED: 3/4/83
J. Hurley

PCBs = 32. ug/g

RECEIVED

MAR 18 1983

E.P.A. - D.L.P.C.
STATE OF ILLINOIS

(5 B)

Time Collected: 12:10 P.M.

Lab #

DO27769

Date Collected: 2-19-83

SPECIAL ANALYSIS FORM

Date Received

FEB 19 1983

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:

ST. CLAIR

FILE HEADING:

SAUGET / S.T.P.

FILE NUMBER:

SOURCE OF SAMPLE: (Exact Location) 75' WEST OF CORNER
OF NEW PUMP STATION.

PHYSICAL OBSERVATIONS, REMARKS: SAMPLE JAR # 5B
COMPOSITE SOIL SAMPLE 6"-14"

TESTS REQUESTED: PCB'S

COLLECTED BY: Kenneth G. Mensing TRANSPORTED BY: Kenneth G. Mensing
(LABORATORY)

RECEIVED BY: J. Hurley DATE COMPLETED: 3/4/83 DATE FORWARDED: 3/4/83
J. Hurley

PCB_s = 20. ug/g

RECEIVED

MAR 18 1983

E.P.A. - D.L.P.C.
STATE OF ILLINOIS

(6)

Time Collected: 12:30 P.M.
Date Collected: 2-19-83

Lab #
SPECIAL ANALYSIS FORM
Date Received DO27770
FEB 19 1983

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY: ST. CLAIR FILE HEADING: SAUGET / S.T.P. FILE NUMBER:

SOURCE OF SAMPLE: (Exact Location) 3' WEST OF NORTH POST
OF HELMKAMP YARD GATE.

PHYSICAL OBSERVATIONS, REMARKS: SAMPLE JAR #6
COMPOSITE SOIL SAMPLE 0"-8".

TESTS REQUESTED: PCB'S

COLLECTED BY: Kenneth G. Menzies TRANSPORTED BY: Kenneth G. Menzies
LABORATORY

RECEIVED BY: J. Honeoy DATE COMPLETED: DATE FORWARDED:

PCBS = 0.12 ug/g

RECEIVED

MAR 18 1983

E.P.A. - D.L.P.C.
STATE OF ILLINOIS



ENVIRODYNE ENGINEERS

1761 Lockwood Road,
St. Louis, Missouri 63141
(314) 434-2900

April 6, 1983

Mr. Harold Baker
Baker and Schrivner
56 South 65th Street
Belleville, Illinois 62223

Dear Mr. Baker:

Envirodyne Engineers, Inc. (EEI) is pleased to submit the results of the analyses of soil samples for 2,3,7,8-TCDD and PCB's. The samples collected on February 19, 1983 were analyzed for 2,3,7,8-TCDD and total PCB's and the samples collected on March 12, 1983 were only analyzed for 2,3,7,8-TCDD. The field notes made during sample collection are appended to this report.

Sample Preparation and Analysis

- A. 2,3,7,8-TCDD: The soil samples were prepared and analyzed for 2,3,7,8-TCDD using the procedure described in the February 1983 revision of "USEPA, Region VII Method for Determination of 2,3,7,8-TCDD in Soil and Sediment". All quality assurance procedures described in that method were used. The internal standard was ^{13}C -2,3,7,8-TCDD and cleanup Option A described in the method was used. All analyses were by low resolution GC/MS using a 30m DB-5 fused silica capillary column.
- B. PCB: The soils extracted in a soxhlet apparatus and analyzed by GC/EC Standards of Arochlor 1242, 1254 and 1260 were used to calculate PCB concentrations in the samples. One sample (EEI No. 44092) was analyzed in duplicate and a blind EPA performance sample was also analyzed as a check on method performance.

Results/Decision

The analytical data for these samples are summarized in Tables 1-3. Tables 1 and 2 summarize the data for the analysis of 2,3,7,8-TCDD and PCBs in the samples collected on February 19, 1983, and Table 3 summarizes the 2,3,7,8-TCDD data for analysis of samples collected on March 12, 1983. There are several samples from both sets which contain concentrations of 2,3,7,8-TCDD ranging from 5.1 ng/g to 170 ng/g.

ENVIRODYNE ENGINEERS

Mr. Harold Baker
April 6, 1983
Page Two

The recovery of the internal standard for sample 44696 is below the recommended minimum (25%) for the method. We have no obvious explanation except that all internal standard recoveries for the samples collected on February 19, 1983 were lower than expected. The estimated analytical detection limits for 2,3,7,8-TCDD in several samples collected on March 12, 1983 are higher (most notably Samples 45000-45003) than the 1 ng/g (1 ppb) detection limit required by the Region VII Method. The reason for this is the presence of compounds (probably PCBs) which interfere with accurate analysis of 2,3,7,8-TCDD. In one sample (Sample No. 44997) the concentration of interferences is so high that no reliable estimate of the concentration of detection limit could be made for this sample, although inspection of the chromatogram and data for other samples obtained from this location indicates that there is a high probability that this sample contains 2,3,7,8-TCDD.

The samples from Sample Location 9 all have high detection limits due to the presence of interferences. These samples should be reanalyzed using alternative cleanup procedures.

The data for the PCB analyses of the samples collected on February 19, 1983 are summarized in Table 2. Measurable concentrations of PCB's were found in all samples collected on February 19, 1983 and ranged in concentration from 28 ng/g in Sample 44691 to 149,600 ng/g in Sample 44693. Also, included in this table is a list of the probable PCB mixtures contained in each of these samples.

Conclusions and Recommendations

1. Substantial number of samples contain 2,3,7,8-TCDD in excess of 1 ng/g with a maximum observed concentration of 170 ng/g. The CDC has proposed a limit of 1 ng/g as maximum level of 2,3,7,8-TCDD in soils for protection of human health. In addition, EPA has announced their intention to classify chlorinated dioxins as an "Acutely Hazardous" substance which will significantly restrict disposal options (Federal Register, March 17, 1983).

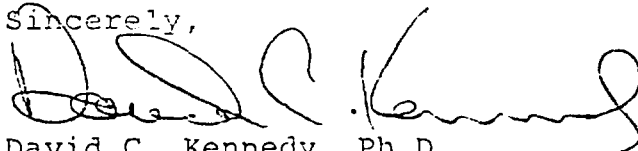
ENVIRODYNE ENGINEERS

Mr. Harold Baker
April 6, 1983
Page Three

2. Substantial number of samples contain high levels of PCB's. In particular, three samples contain PCB's in excess of 50 parts per million (50,000 ng/g) which will restrict disposal options.
3. Samples from Sample Location 9 should be reanalyzed using alternative cleanup procedures to determine at a lower detection level, the presence or absence of TCDD.
4. The samples collected on March 12, 1983 should be analyzed for PCB's.
5. The analytical results obtained to date should be transferred to a base map of the site and concentration isopleths developed to guide further investigation and remedial measures.
6. It is likely that disposal or on-site containment of contaminated soil will be required. In this event, additional depth-discrete sampling and analysis for TCDD and PCB's will be required to determine quantities of soils to be handled and suitable disposal or containment methods. This activity, if required, should be carefully planned and executed.

If you have any questions regarding this information, please feel free to contact me.

Sincerely,



David C. Kennedy, Ph.D.
Vice President/Office Manager

EMH/nja
Attachments

TABLE 1
ANALYTICAL DATA SUMMARY
FOR ANALYSIS OF SOIL SAMPLES
FOR 2,3,7,8-TCDD

<u>Sample</u>	<u>Desc</u>	<u>Date Collected</u>	<u>EEl Sample No.</u>	<u>TCDD (ng/g)</u>	<u>Percent Recovery</u>
1	0-7"	2/19/83	44687	<0.46	25
2A	0-7"	2/19/83	44688	<0.74	24
2B	7"-13"	2/19/83	44689	<0.32	26
3A	0-7"	2/19/83	44690	<0.16	28
3B	7"-13"	2/19/83	44691	<0.46	27
4A	0-6"	2/19/83	44692	<0.21	50
4B	6"-13"	2/19/83	44693	<0.38	44
5A	0-6"	2/19/83	44694	28	43
5B	6"-14"	2/19/83	44695	5.1	41
6	0-8"	2/19/83	44696	<0.56	18
6 (duplicate)	0-8"	2/19/83	44696D	<0.41	26

TABLE 2
ANALYTICAL DATA SUMMARY
FOR PCB ANALYSIS OF COIL SAMPLES

<u>Sample</u>	<u>Desc.</u>	<u>Date Collected</u>	<u>EEI Sample No.</u>	<u>PCB (ng/g)</u>	<u>Comments</u>
1	0-7"	2/19/83	44687	3,690	Arochlor 1242, 1254
2A	0-7"	2/19/83	44688	5,350	Arochlor 1242, 1260
2B	7"-13"	2/19/83	44689	716	Arochlor 1242
3A	0-7"	2/19/83	44690	137,250	Arochlor 1242, 1260
3B	7"-13"	2/19/83	44691	28	Arochlor 1242, 1260
4A	0-6"	2/19/83	44692	21,020	Arochlor 1242, 1254
4A	0"-6"	2/19/83	44692D	15,510	Arochlor 1242, 1254
(duplicate)					
4B	6"-13"	2/19/83	44693	149,600	Arochlor 1242, 1260
5A	0-6"	2/19/83	44694	112,930	Arochlor 1242, 1260
5B	6"-14"	2/19/83	44695	12,050	Arochlor 1242, 1260
6	9-8"	2/19/83	44696	90	Arochlor 1254

TABLE 3
ANALYTICAL DATA SUMMARY
FOR ANALYSIS OF SOIL SAMPLES
FOR 2,3,7,8-TCDD

<u>Sample No.</u>	<u>Date Collected</u>	<u>EEI Sample No.</u>	<u>Desc.</u>	<u>TCDD ($\mu\text{g/Kg}$)</u>	<u>Percent Recovery</u>
			0-6"	<0.43	84
			8-16"	<0.45	100
7A	3/12/83	44994			
7B	3/12/83	44995	0-6"	44	82
8A	3/12/83	44996	6-12"	Interferences	219
8B	3/12/83	44997	13"-18"	19	100
8C	3/12/83	44998	18-25"	37,56 ✓	95,85
8D	3/12/83	44999	0-6"	<53 ✓	7
9A	3/12/83	45000	6-12"	<45	110
9B	3/12/83	45001	14-21"	<3.9	98
9C	3/12/93	45002	22-28"	<11	75
9D	3/12/83	45003	0-6"	<0.13	65
10A	3/12/83	45004	6-12"	13	74
10B	3/12/83	45005	0-6"	<10	78
11A	3/12/83	45006	6-18"	<4.6	80
11B	3/12/83	45007	10-14"	<0.39	87
12	3/12/83	45008	0-7"	<1.5	58
13A	3/12/83	45009	7-18"	<0.5	76
13B	3/12/83	45010	0-6"	<0.86	76
14	3/12/83	45011	0-16"	13	72
15	3/12/83	45012	0-18"	170	84
16	3/12/83	45013			

3/12/83

<u>SAMPLE #</u>	<u>DESCRIPTION</u>	
7A	60' west of power pole, in line with N. end of Admin. Bldg. 0 to 6" gravely sand	EPA/ENVIR
7B	8 to 13" Sandy gravel 13 to 16" Grayish Brown loamy sand	EPA/ENVIR.
8A	40' East of S.W. corner stake for Effluent pump station - In line with S. end of locker Bldg. 13' North of Southeast corner post 0 to 6" grayish brown sand loam	ENVIR.
8B	6" to 12" Loamy sand - grayish brown - Wood debris	EPA/ENVIR.
8C	13" - 16" as above - loamy sand, grayish brown 16" - 18" Yellowish brown - fine sand	ENVIR.
8D	18" - 25" yellowish brown - fine sand	EPA/ENVIR
9A	3 ft. S.W. of N.E. corner stake post 0" - 5" Brownish grey - sandy loam 5" - 6" Loamy sand - greyish brown	EPA/ENVIR
9B	6" - 12" Greyish brown - loamy sand with hunk of silty clay artifact	ENVIR.
9C	14" - 21" intermixed color - loamy sand to medium sand	EPA/ENVIR.
9D	22" - 28" very dark greyish brown loamy sand, last 2" intermixed with light yellowish brown medium sand	ENVIR.
10A (CS#2)	Control Sample	
10B (CS#2A)	Control Sample	
11	4 ft. N. W. of Line A Marker 20 +42.35 on line with marker 0+15 line B	
11A	0 - 5" brownish grey loam 5 - 6" yellowish brown medium sand	ENVIR.
11B	6" - 7" yellowish brown medium sand 7" - 18" dark brownish grey loamy sand, some gravel with cinders and glass debris	EPA/ENVIR.
12	10 ft. N. W. of N. W. corner of Effluent Pump Station	
12A	10" - 19" yellowish brown - fine sand	ENVIR.
13	3 ft N. W. of stake 0 + 15 Line B	
13A	0 - 6" light grey gravely sand 6 - 7" Very dark greyish brown loamy sand	ENVIR.

3/12/83

Page 2

- 13B 7 - 18" Very dark greyish brown loamy sand, some slag EPA/ENVIR.
 present.
- 14 Random pile sample from West and North fence area (8 locations) ENVIR.
 Generally 0 - 6"
 Textures vary from sand, loamy sand, and sandy loam
- 15 South central area with water standing - inside S. boundary of
 pump station.
 0 - 8" varies from sand to loamy sand
 Various locations
 0 - 14" greyish medium sand - sedimentation EPA/ENVIR.
 14 - 16" very dark brown loam with debris
- 16 North central area with water standing EPA/ENVIR.
 0 - 18" - texture varies from loamy sand to sandy loam
 0 - 10" - silty clay loam to loam
 0 - 6" - loam
 Seven cores in total

PRESENT: John Zelle - American Bottoms
 Rick Snarski - Envirodyne Sampler
 Ken Mensing - I.E.P.A.
 C. J. Marcianite - Saugeen Wastewater Treatment Plant



HAZLETON RALTECH, INC.

3301 KINSMAN BLVD. • P.O. BOX 7545 • MADISON, WI 53707 • (608) 241-4471 • TLX 260098 HAZRAL MDS

File
St. Clair Co Gen
Sauget S:
file

April 6, 1983

RECEIVED

APR 12 1983

**DLG
MGRS. OFC.**

Mr. John Hurley
State of Illinois EPA
Division of Laboratories
2200 Church Hill Road
Springfield IL 62706

Dear Mr. Hurley:

Please find enclosed the analytical results of the analyses performed on samples received on February 28 and March 21, 1983. The samples were analyzed according to protocols established in the enclosed methodology.

As you are aware, your samples contained polychlorinated biphenyls which interfered with our measurement of the surrogate/interval standard added at a level of 2.5 ppb in the sample. The cleanups employed in the methodology were unsuccessful in eliminating the interference. Several samples in the original set and all of the samples in the second set were cleaned up using florisil column chromatography which eliminated the PCB interference.

Thank you, Mr. Hurley, for choosing Hazleton Raltech, Inc. Please feel free to call if you have any questions or further needs.

Sincerely,

Joel R. Baseley

Joel R. Baseley
Section Supervisor
Mass Spectrometry

JRB/km

Table 1

Soil Samples Received February 28, 1983

Results for TCDD Analyses Using a Jar Extraction

<u>HRI Sample Number</u>	<u>Description: Composite Soil</u>	<u>Cleanup</u>	<u>TCDD (ng/g)</u>	<u>Detection Limit (ng/g)</u>	<u>Recovery of Surrogate (%)</u>
744352	1 (0" to 7")	A, B	ND	0.50	110
Duplicate			ND	0.40	100
744353	2A (0" to 7")	A, B, C	ND	0.50	63
744354	2B (7" to 13")	A, B	ND	0.30	76
744355	3A (0" to 7")	A, B, C	ND	0.90	36
744356	3B (7" to 13")	A, B	ND	0.40	53
744357	4A (0" to 6")	A, B	ND	0.10	86
744358	4B (6" to 13")	A, B, C	ND	0.20	43
744359	5A (0" to 6")	A, B, C	18	-	67
Duplicate			17	-	103
Triplicate			18*	-	108
744360	5B (6" to 14")	A, B, C	4.1	-	47
Spike**			-	-	30
744361	6 (0" to 8")	A, B, C	ND	0.30	63
Method Blank		A, B, C	ND	0.10	95

A = Silica cleanup.

B = Alumina cleanup.

C = Florsil cleanup.

ND = Not detected.

* = Confirmed by partial scan.

** = Recovery of spiked TCDD was 113%.

Table 2

Soil Samples Received March 23, 1983

Results for TCDD Analyses Using a Jar Extraction

<u>HRI Sample Number</u>	<u>Description: Composite Soil</u>	<u>TCDD (ng/g)</u>	<u>Detection Limit (ng/g)</u>	<u>Recovery of Surrogate (%)</u>
949717	7A (0" to 6")	ND	0.69	77
949718	7B (8" to 16")	1.8	-	120
949719	8B (6" to 12")	77*	-	99
949720	8D (18" to 25")	ND	0.30	118
Duplicate	8D (18" to 25")	ND	0.60	112
Spike**	-	-	-	86
949721	9A (0" to 6")	1.3	-	106
949722	9C (14" to 21")	ND	0.60	74
949723	10A (0" to 6")	0.92	-	63
949724	10B (6" to 12")	12	-	87
949725	11B (6" to 18")	ND	0.58	103
949726	13B (7" to 18")	ND	0.67	62
949727	15 (0" to 16")	13*	-	66
949728	16 (8" to 18")	25*	-	92
Method blank	-	ND	0.30	75

Note: All samples were cleaned up on silica, alumina, and Florisil columns.

ND = Not detected.

* = Confirmed by partial scanning.

** = Spike recovery was 86%.

B039807

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND POLLUTION CONTROL
CHAIN OF CUSTODY

APR. 20. 1984

I certify that the samples listed below were collected in my presence and that each sample bottle was sealed intact by me and that I wrote my initials and the date on the seal of each bottle.

Site Inventory No. General County St. Clair
Federal I.D. No. None Sauget Sauget STP
(Facility Name)

SAMPLING TEAM

Sample No.	Consisting of the Indicated No. of Bottles	Date Collected	Time Sealed
<u>1</u>	<u>1</u>	<u>4-18-84</u>	<u>2:30</u> <u>PM</u>
			AM/PM
			AM/PM
			AM/PM
			AM/PM
			AM/PM
			AM/PM
			AM/PM
			AM/PM
			AM/PM

RECEIVED
APR 23 1984
EPA - D.L.P.C.
STATE OF ILLINOIS

Sealer's Signature N. Hahlandt Date 4-18-84 Time 2:30 PM
Sampler(s) Hahlandt

I certify I received the above samples, with each seal on each bottle intact and the sealer's initials written on each sample seal.

CARRIERS

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time
<u>Hahlandt</u>	<u>4-18-84</u>	<u>2:45</u> <u>PM</u>	<u>Derry Mann</u>	<u>4-18-84</u>	<u>2:45</u> <u>AM/PM</u>
<u>Derry Mann</u>	<u>4-19-84</u>	<u>2:22</u> <u>PM</u>	<u>Margo B. Dillard</u>	<u>4-19-84</u>	<u>2:22</u> <u>AM/PM</u>
<u>Margo B. Dillard</u>	<u>4-19-84</u>	<u>2:59</u> <u>PM</u>	<u>Greyhound Bus (Inc)</u>	<u>4-19-84</u>	<u>2:59</u> <u>AM/PM</u>
<u>Angela Rund</u>	<u>4/20/84</u>	<u>1:30</u> <u>AM/PM</u>	<u>A. Rund</u>	<u>4/20/84</u>	<u>1:30</u> <u>AM/PM</u>
		AM/PM			AM/PM
		AM/PM			AM/PM
		AM/PM			AM/PM

LAB CUSTODIAN

I certify I received the above samples with each seal on each bottle intact, and the sealer's initials written on each sample seal. After recording these samples in the official record book, these same samples will be in the custody of competent laboratory personnel at all times or locked in a secured area.

Signature Angela Rund Date 4/20/84 Time 1:30 A.M. PM

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND POLLUTION CONTROL
CHAIN OF CUSTODY

I certify that the samples listed below were collected in my presence and that each sample bottle was sealed intact by me and that I wrote my initials and the date on the seal of each bottle.

Site Inventory No. General County St Clair

Federal I.D. No. None Sargent 1 Sargent STP
(Facility Name)

Sample No.	Consisting of the Indicated No. of Bottles	Date Collected	Time Sealed
<u>2</u>	<u>1</u>	<u>4-18-84</u>	<u>2:40</u> PM <u>PM</u>
_____	_____	_____	<u>AM/PM</u>
_____	_____	_____	<u>AM/PM</u>
_____	_____	_____	<u>AM/PM</u>
_____	_____	_____	<u>AM/PM</u>
_____	_____	_____	<u>AM/PM</u>
_____	_____	_____	<u>AM/PM</u>
_____	_____	_____	<u>AM/PM</u>
_____	_____	_____	<u>AM/PM</u>
_____	_____	_____	<u>AM/PM</u>

SAMPLING TEAM

Sealer's Signature N. Halland Date 4-18-84 Time 2:40 ~~PM~~ PM

Sampler(s) Halland

I certify I received the above samples, with each seal on each bottle intact and the sealer's initials written on each sample seal.

CARRIERS

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time
<u>Halland</u>	<u>4-18-84</u>	<u>2:45</u> PM <u>PM</u>	<u>Young Mun</u>	<u>4-18-84</u>	<u>2:45</u> PM <u>PM</u>
<u>Young Mun</u>	<u>5-2-84</u>	<u>8:35</u> PM <u>PM</u>	<u>Young Mun</u>	<u>5-2-84</u>	<u>8:35</u> PM <u>PM</u>
<u>Young Mun</u>	<u>5-2-84</u>	<u>11:30</u> PM <u>PM</u>	<u>Young Mun</u>	<u>5-2-84</u>	<u>8:35</u> PM <u>PM</u>
_____	_____	<u>AM/PM</u>	_____	_____	<u>AM/PM</u>
_____	_____	<u>AM/PM</u>	_____	_____	<u>AM/PM</u>
_____	_____	<u>AM/PM</u>	_____	_____	<u>AM/PM</u>
_____	_____	<u>AM/PM</u>	_____	_____	<u>AM/PM</u>
_____	_____	<u>AM/PM</u>	_____	_____	<u>AM/PM</u>

RECEIVED

MAY 04 1984

E.P.A. — D.L.P.C.

STATE OF ILLINOIS

I certify I received the above samples with each seal on each bottle intact, and the sealer's initials written on each sample seal. After recording these samples in the official record book, these same samples will be in the custody of competent laboratory personnel at all times or locked in a secured area.

Signature Don't Date 5-2 Time 11:30 ~~A.M.~~ P.M.

LAB CUSTODIAN

LP-41
04

SW 846 Analytical Procedures must be Followed

Time Collected: 10:00 A

Lab #

B039807

Date Collected: 4-18-84

SPECIAL ANALYSIS FORM

Date Received APR 20, 1984

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:

St. Clair

FILE HEADING:

Sauget STP

FILE NUMBER:

General

SOURCE OF SAMPLE: (Exact Location)

Sample #1

Vacuum Filter Cake

PHYSICAL OBSERVATIONS, REMARKS:

TESTS REQUESTED:

EP Tox Metals

COLLECTED BY:

Mahlandt

TRANSPORTED BY:

LABORATORY

RECEIVED BY:

Angela Rund

DATE
COMPLETED:

DATE JUN 25 1984
FORWARDED:

Cd 440

Ba 420

Cr 580

Hg 39.3

Cu 8800

As 162

Fe 102,000

Se 23.2

Pb 2600

Mn 1700

Ni 3900

Ag 40.1

Zn 27000

RECEIVED

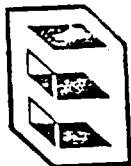
JUN 27 1984

EPA - D.L.P.C.
STATE OF ILLINOIS

CHAMPAIGN

[Signature]

DATA IN TERMS OF CONCENTRATION FOR
CRITICAL POINTS ONLY
STANDARD METHOD USED
ON DRY WEIGHT, 103° F. 48 HOURS.



ENVIRODYNE
ENGINEERS

12161 Lackland Road,
St. Louis, Missouri 63146
(314) 434-6960

REPORT OF ANALYSIS

Environment • Energy • Transportation

SUBMITTED BY: Mr. Bill Sago
-Russell & Axon
Suite 700
319 North 4th
St. Louis, MO. 63102

DATE: 8/24/84

PROJECT NO. 2023-00039

P.O.

DATE RECEIVED: 7/20/84

SAMPLE ANALYZED: Soil Samples

METHODS USED: Method for Chemical Analysis of Water & Wastes EPA 1983

RESULTS:

East side 30' NCFS tube - 5.73% Oil & Grease
Dirt Pile, West side - 0.200% Oil & Grease

Organic results listed on separate summary sheet.

RECEIVED

SEP 04 1984

ILL. E.P.A. - D.L.P.C.
STATE OF ILLINOIS

ENVIRODYNE ENGINEERS

[Handwritten signature]



ENVIRODYNE
ENGINEERS

12161 Lackland Road,
St. Louis, Missouri 63146
(314) 434-6960

REPORT OF ANALYSIS

Environment • Energy • Transportation

SUBMITTED BY: Mr. Bill Sago
Russell & Axon
Suite 700
319 North 4th
St. Louis, MO. 63102

DATE: 8/24/84

PROJECT NO. 2023-00039

P.O.

DATE RECEIVED: 7/20/84

SAMPLE ANALYZED: Soil Samples

METHODS USED: Method for Chemical Analysis of Water & Wastes EPA 1983

RESULTS:

East side 30' NCFS tube - 5.73% Oil & Grease
Dirt Pile, West side - 0.200% Oil & Grease

Organic results listed on separate summary sheet.

RECEIVED

SEP 04 1984

ILL. E.P.A. - D.L.P.C.
STATE OF ILLINOIS

ENVIRODYNE ENGINEERS

Bill Sago

16B	butyl benzyl phthalate		4.07						
16B	2-chloronaphthalene								
17B	4-chlorophenyl phenyl ether								
18B	chrysene* (see 5B)								
19B	dibenzo(a,h)anthracene								
20B	1,2-dichlorobenzene		12.2						
21B	1,3-dichlorobenzene								
22B	1,4-dichlorobenzene		8.01						
23B	3,3'-dichlorobenzidine								
24B	diethyl phthalate								
25B	dimethyl phthalate								
26B	di-n-butyl phthalate		5.06	0.100					
27B	2,4-dinitrotoluene								
28B	2,6-dinitrotoluene								
29B	di-n-octyl phthalate								
30B	1,2-diphenylhydrazine (as azobenzene)								
31B	fluorantene								
32B	fluorene								
33B	hexachlorobenzene								
34B	hexachlorobutadiene								
35B	hexachlorocyclopentadiene								
36B	hexachloroethane								
37B	indeno(1,2,3-cd)pyrene								
38B	isophorone								
39B	naphthalene								
40B	nitrobenzene								
41B	N-nitrosodimethylamine								
42B	N-nitrosodi-n-propylamine								
43B	N-nitrosodiphenylamine								
44B	phenanthrene* (see 3B)	100	1.6						
45B	pyrene	102	2.1						
46B	1,2,4-trichlorobenzene	65.3	1.6						
Pesticides		Not Requested							
1P	aldrin								
2P	α-BHC								
3P	β-BHC								
4P	γ-BHC								
5P	δ-BHC								
6P	chlordan								
7P	4,4'-DDT								
8P	4,4'-DDE								
9P	4,4'-DDD								
10P	dieldrin								
11P	α-endosulfan								
12P	β-endosulfan								
13P	endosulfan sulfate								
14P	endrin								
15P	endrin aldehyde								
16P	heptachlor								
17P	heptachlor epoxide								
18P	PCB-1242								
19P	PCB-1254								
20P	PCB-1221								
21P	PCB-1232	by GC mg/L							
22P	PCB-1248	\$2070	59						
23P	PCB-1260	by GC mg/L							
24P	PCB-1016								
25P	tonaphene								

RECEIVED

SEP 24 1984

ILL. EPA - D.L.
STATE OF ILLINOIS

NOTES: (a) All results are reported in µg/gm unless otherwise noted.
if the compound was not detected.

Vol. 111. Compounds - FRN No.		Lab No.						
1V	acrolein							
2V	acrylonitrile							
3V	benzene							
4V	bis(chloromethyl) ether							
5V	bromoform							
6V	carbon tetrachloride							
7V	chlorobenzene							
8V	chlorodibromomethane							
9V	chloroethane							
10V	2-chloroethylvinyl ether							
11V	chloroform							
12V	dichlorobromomethane							
13V	dichlorodifluoromethane							
14V	1,1-dichloroethane							
15V	1,2-dichloroethane							
16V	1,1-dichloroethylene							
17V	1,2-dichloropropane							
18V	1,3-dichloropropylene							
19V	ethylbenzene							
20V	methyl bromide							
21V	methyl chloride							
22V	methylene chloride							
23V	1,1,2,2-tetrachloroethane							
24V	tetrachloroethylene							
25V	toluene							
26V	1,2-trans-dichloroethylene							
27V	1,1,1-trichloroethane							
28V	1,1,2-trichloroethane							
29V	trichloroethylene							
30V	trichlorofluoromethane							
31V	vinyl chloride							
Acid Compounds - Lab No.		62359	62360	Blank				
FRN No.		11297	11298	3280				
1A	2-chlorophenol							
2A	2,4-dichlorophenol	50.1						
3A	2,4-dimethylphenol							
4A	4,6-dinitro-o-cresol							
5A	2,4-dinitrophenol							
6A	2-nitrophenol							
7A	4-nitrophenol							
8A	p-chloro-m-cresol							
9A	pentachlorophenol	3600	159					
10A	phenol							
11A	2,4,6-trichlorophenol	39.3						
Base/Neutral Compounds - Lab No.								
FRN No.								
1B	acenaphthene							
2B	acenaphthylene							
3B	anthracene*							
4B	benzidine							
5B	benzo(a)anthracene*/Chrysene	123	2.2					
6B	benzo(a)pyrene	4.2	1.0					
7B	3,4-benzofluoranthene*/Benzo(K)	15.9	0.45					
8B	benzo(ghi)perylene							
9B	benzo(k)fluoranthene* (see 7B)							
10B	bis(2-chloroethoxy)methane							
11B	bis(2-chloroethyl) ether							
12B	bis(2-chloroisopropyl) ether							
13B	bis(2-ethylhexyl) phthalate							

RECEIVED

SEP 04 1984

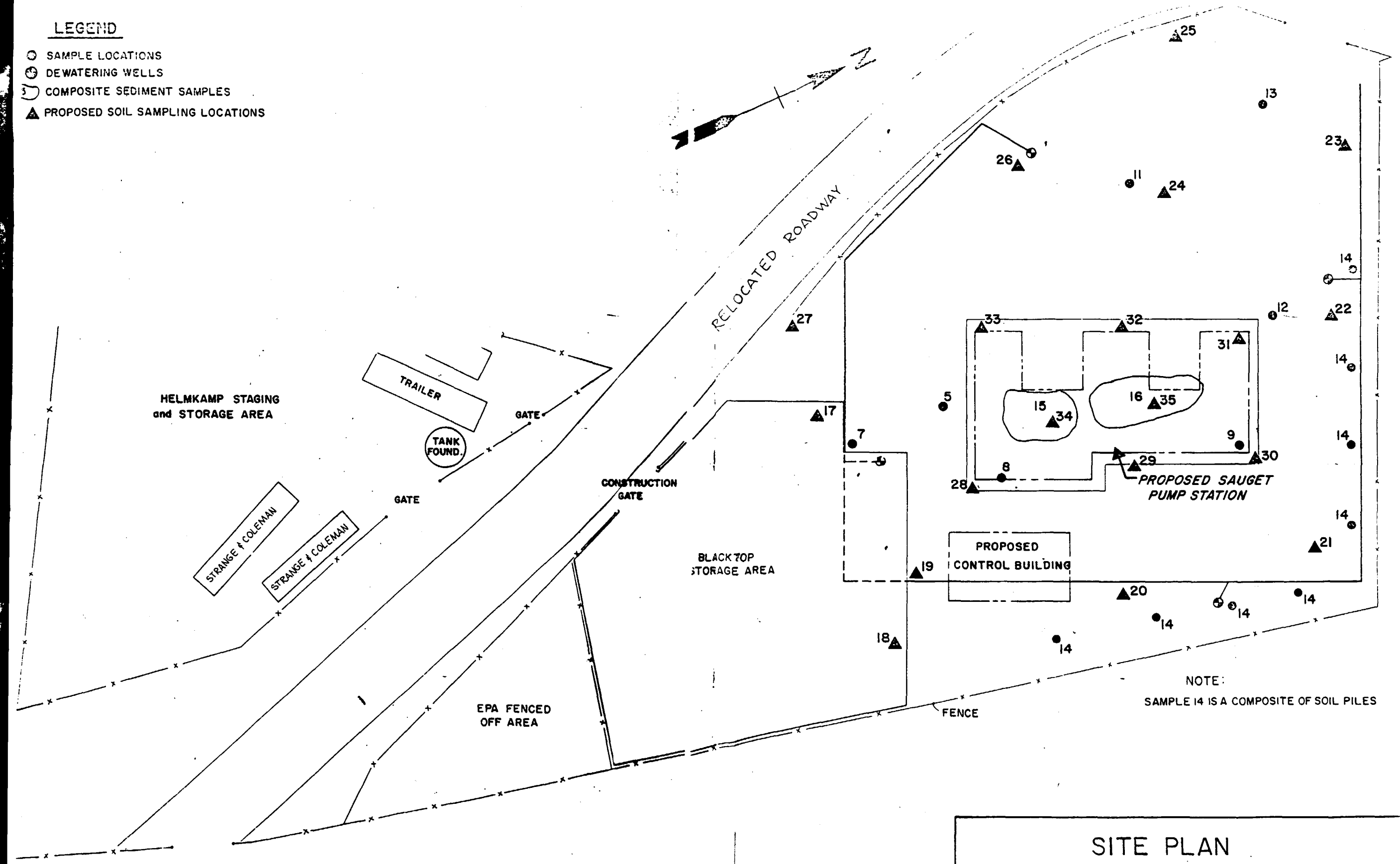
ILL. EPA - D.L.P.C.
STATE OF ILLINOIS

SITE		East	West						
/OA SURROGATES	LAB NO.								
	FRN NO.								
ACID SURROGATES	LAB NO.	62359	62360	Blank					
	FRN NO.	11297	11298	11296					
2-fluorophenol		ND	4.8	3.9					
d ₆ -phenol		ND	3.3	4.1					
pentafluorophenol		ND	3.8	3.4					
BASE/NEUTRAL SURROGATES	LAB NO.								
	FRN NO.								
d ₅ -nitrobenzene		ND	6.3	4.0					
decafluorobiphenyl		6.9	8.2	5.1					
d ₈ -naphthalene		6.7	8.9	3.6					
2-fluorobiphenyl		7.9	9.6	4.6					

NOTE: All surrogates spiked at 10 mg/g (ppm) unless noted otherwise.

LEGEND

- SAMPLE LOCATIONS
- ⊙ DEWATERING WELLS
- ⊖ COMPOSITE SEDIMENT SAMPLES
- ▲ PROPOSED SOIL SAMPLING LOCATIONS



SITE PLAN
PROPOSED SOIL SAMPLING LOCATIONS

file: Sauget/Sauget STP

LEGEND

- SAMPLE LOCATIONS
- DEWATERING WELLS
- COMPOSITE SEDIMENT SAMPLES

